

IN THE CLAIMS:

1. (original) An optical disc recording apparatus, comprising:
an optical pickup which applies a laser beam of substantially constant power to
an optical disc;
a rotating section which rotates the optical disc at a substantially constant speed;
a feeding section which moves the optical pickup by a movement distance in a
radial direction of the optical disc;
a detecting section which detects a radial position of the optical pickup with
respect to the optical disc; and
a movement distance controlling section which changes the movement distance
set in the feeding section in accordance with the radial position of the optical pickup
detected by the detecting section.
2. (original) The optical disc recording apparatus according to claim 1, wherein
a rotation number of the optical disc rotated by the rotating section is controlled by the
rotation controlling section to be substantially constant.
3. (original) The optical disc recording apparatus according to claim 1, wherein
the power of the laser beam is controlled by a laser power controlling section to be
substantially constant.
4. (original) The optical disc recording apparatus according to claim 1, wherein
the feeding section moves the optical pickup each time when the optical disc is rotated
once by the rotating section.
5. (previously presented) The optical disc recording apparatus according to
claim 1, wherein the movement distance controlling section changes the movement

distance set in the feeding section to be further reduced in a stepwise manner as the radial position of the optical pickup is moved from an inner peripheral side of the optical disc toward an outer peripheral side.

6. (previously presented) The optical disc recording apparatus according to claim 1, further including a storage section which stores feed management information for forming an image of a density which is uniform over a substantially whole area of the optical disc, the feed management information including radial positions of the optical pickup and corresponding movement distances of the optical pickup,

wherein the movement distance controlling section obtains the movement distance based on the radial position of the optical pickup that is detected by said detecting section, and a corresponding movement distance in the feed management information.

7. (original) The optical disc recording apparatus according to claim 1, wherein the optical disc recording apparatus forms an image on the optical disc in accordance with image data with using the optical pickup, the rotating section, the feeding section, the detecting section and the movement distance controlling section.

Claims 8 – 11 (cancelled).

12. (original) A method of forming an image on an optical disc comprising steps of:

rotating the optical disc at substantially constant speed;

applying a laser beam of substantially constant power to the optical disc by an optical pickup;

moving the optical pickup by a movement distance in a radial direction of the optical disc; and

changing the movement distance in accordance with the radial position of the optical pickup on the optical disc.

Claim 13 (cancelled).

14. (previously presented) An optical disc including a heat sensitive layer in which an image is formed by discoloring the heat-sensitive layer, the image being formed by the steps of:

rotating the optical disc at substantially constant speed;

applying a laser beam of substantially constant power to the optical disc by an optical pickup;

moving the optical pickup by a movement distance in a radial direction of the optical disc; and

changing the movement distance in accordance with the radial position of the optical pickup on the optical disc.

Claim 15 (cancelled).

16. (previously presented) The method of claim 12, wherein a number of rotations the optical disk is rotated is controlled by a rotation controlling section to be substantially constant.

17. (previously presented) The method of claim 12, wherein the power of the laser beam is controlled by a laser power controlling section to be the substantially constant power.

18. (previously presented) The method of claim 12, wherein the moving of the optical pickup by the movement distance occurs each time when the optical disk is rotated once by a rotating section.

19. (previously presented) The method of claim 12, wherein the changing in the movement distance is further reduced in a stepwise manner as the radial position of the optical pickup is further moved from an inner peripheral side of the optical disc toward an outer peripheral side.

20. (previously presented) The method of claim 12, further including storing feed management information which is utilized for forming an image of a density which is uniform over a substantially whole area of the optical disc, the feed management information including radial positions of the optical pickup and corresponding movement distances of the optical pickup, and

obtaining the movement distance of the optical pickup based on the radial position of the optical pickup detected by a detecting section and a corresponding movement distance in the feed management information.

21. (previously presented) The method of claim 12, further including forming an image on the optical disc in accordance with image data.

22. (previously presented) The optical disc of claim 14, wherein a number of rotations the optical disk is rotated is controlled by a rotation controlling section to be substantially constant.

23. (previously presented) The optical disc of claim 14, wherein the power of the laser beam is controlled by a laser power controlling section to be the substantially constant power.

24. (previously presented) The optical disc of claim 14, wherein the moving of the optical pickup by the movement distance occurs each time when the optical disc is rotated once by a rotating section.

25. (previously presented) The optical disc of claim 14, wherein the changing in the movement distance is further reduced in a stepwise manner as the radial position of the optical pickup is further moved from an inner peripheral side of the optical disc toward an outer peripheral side.

26. (previously presented) The optical disc of claim 14, further including storing feed management information which is utilized for forming an image of a density which is uniform over a substantially whole area of the optical disc, the feed management information including radial positions of the optical pickup and corresponding movement distances of the optical pickup, and

obtaining the movement distance of the optical pickup based on the radial position of the optical pickup detected by a detecting section and a corresponding movement distance in the feed management information.

27. (previously presented) The optical disc of claim 14, further including forming an image on the optical disc in accordance with image data.